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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,574	01/28/2005	Hermann Grether	SMB-PT124 (PC 03 404 B US	1426
3624 7590 04/21/2008 VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER GORMAN, DARREN W	
			ART UNIT 3752	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/523,574

Applicant(s)

GRETHER, HERMANN

Examiner

Darren W. Gorman

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 01/28/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed on January 28, 2005 is hereby acknowledged and has been placed of record. Please find attached a signed copy of the PTO 1449.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the features canceled from the claims:

- The jet fractionating device having through flow holes with a “smaller opening diameter in comparison to through flow openings of the jet regulating device” is not adequately shown. First, the “through flow holes” of the “jet fractionating device” are only shown in the cross-sectional views of Figures 1 and 15. In these views, it can be seen that the “through flow holes” actually taper from an inlet side to an outlet side. At least at their widest part in the upstream portion of the jet fractionating device, the holes appear to have relatively about the same cross-sectional “width” as the “through flow openings” (12) of the shown inserts (5a, 5b), which go to make up the “jet regulating device” (4). Also, the cross-sectional “width” of the “passage openings” of the flow rectifier appears to be about the same width as the widest part of the through flow holes of the upstream portion of the jet fractionating device. Thus, such a claim recitation cannot be considered to be clearly and definitively shown in the drawings. Moreover, the “openings” of the

elements which go to make up both the “jet regulating device” and the “flow rectifier” in their various embodiments, as shown in Figures 2a, 3a, 4, 5a, 6a, 7a, 8, 9a, 10a and 13, are not shown to be circular openings, thus they cannot be considered to have an opening “diameter”.

- The housing part at the outflow side being stiffened by longitudinal webs that are distributed generally uniformly in the circumferential direction, as recited in claim 30, is not clearly shown. Applicant’s drawing Figure 15 shows reference number “22” which are supposed to designate these longitudinal webs, however the lead lines don’t appear to point to anything that can reasonably be described as “longitudinal webs”.
- The “locking connection”, as recited in claim 33, is not shown.

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the recitation, “through flow holes of the jet fractionating device have a smaller opening diameter in comparison to through flow openings of the jet regulating device” is indefinite in view of the disclosure. First, the “through flow holes” of the “jet fractionating device” are only shown in the cross-sectional views of Figures 1 and 15. In these views, it can be seen that the “through flow holes” actually taper from an inlet side to an outlet side. At least at their widest part in the upstream portion of the jet fractionating device, the holes appear to have relatively about the same cross-sectional “width” as the “through flow openings” (12) of the shown inserts (5a, 5b), which go to make up the “jet regulating device” (4). Also, the cross-sectional “width” of the “passage openings” of the flow rectifier appears to be about the same width as the widest part of the through flow holes of the upstream portion of the jet fractionating device. Thus, the aforementioned claim recitations are indefinite in view of the disclosure. Moreover, the “openings” of the elements which go to make up both the “jet regulating device” and the “flow rectifier” in their various embodiments, as shown in Figures 2a, 3a, 4, 5a, 6a, 7a, 8,

9a, 10a and 13, and as described throughout the specification, are not shown to be circular openings, thus they cannot be considered to have an opening “diameter”. Therefore, such a comparison of opening “diameters” is indefinite with respect to the disclosure.

Further regarding claim 1, the recitation, “a housing part” on line 4 is confusing because it is unclear if this “housing part” is one of the “at least two housing parts” recited on line 2 of the claim, or if this is an additional housing part to the “at least two housing parts”.

Further regarding claim 1, the recitation, “the flow inlet side” on line 4 lacks antecedent basis.

Further regarding claim 1, the recitation, “a flow outlet side” is unclear. What is this “flow outlet side” referring to?

Further regarding claim 1, the recitation, “through flow holes of the jet fractionating device” is unclear. What through flow holes is this recitation referring to?

Further regarding claim 1, the recitation, “through flow openings of the jet regulating device” is unclear. What through flow openings is this recitation referring to?

Regarding claim 4, the recitation, “wherein the jet regulating device comprises at least two jet regulating devices” is unclear. What does this recitation mean?

Further regarding claim 4, the recitation, “that can optionally be placed...” is unclear. The term “optionally” can be interpreted such that the device may not include any “jet regulating devices”. If the device lacks the optional jet regulating devices, then how can the jet regulator comprise the jet regulating device which comprises at least two jet regulating devices?

Further regarding claim 4, the recitation, “are allocated to the mounting housing” is unclear. What does this recitation mean?

Further regarding claim 4, the recitation, “the at least two housing parts that can be connected to one another in releasable fashion” lacks antecedent basis, because the “at least two housing parts” of claim 1 have not been limited to ones which are “releasably” connected.

Regarding claim 5, the recitation, “the allocated housing part” lacks antecedent basis. It is also unclear how this claim further limits the device of claim 1.

Regarding claim 6, the recitation, “the two adjacent housing parts that can be connected to one another in a separating plane that is oriented transverse to an inflow direction” is unclear. The entire recitation lacks antecedent basis. It is also unclear what the two adjacent housing parts are referring to.

Regarding claim 8, the recitation, “the housing part at the flow outlet side” lacks antecedent basis.

Further regarding claim 8, the recitation, “at least one insert part of the jet regulating device” is unclear. What at least one insert part is this recitation referring to?

Regarding claim 9, the recitation, “the housing part allocated to the jet regulating device” is unclear. What housing part is this recitation referring to?

Regarding claim 12, the recitation, “the at least one insert part of the jet regulating device” is unclear. This recitation essentially lacks antecedent basis, because claim 11 recites that the “jet regulator” has at least one insert part”, but the “jet regulating device” has not been limited to have “at least one insert part”. Is the claim 12 recitation referring to the same “at least one insert part” recited in claim 11, or is the “at least one insert part” of claim 12 a different part of the apparatus?

Further regarding claim 12, the recitation, “the individual jets” lacks antecedent basis.

Regarding claim 13, the recitation, “at least two adjacent insert parts” is unclear. What at least two adjacent insert parts is this recitation referring to?

Regarding claim 14, the recitation, “the...intersect nodes” lacks antecedent basis.

Regarding claim 16, the recitation, “from through-openings of one of the insert parts” is unclear. Is this recitation of “through openings” referring to the through-flow openings of the “jet regulating device” recited in claim 1, or are these different openings?

Regarding claim 17, the recitation, “the at least one insert part at the flow inlet side” is unclear. What part is “the at least one insert part at the flow inlet side”?

Further regarding claim 17, the recitation, “one insert part at the flow outlet side” is unclear. What part is the “one insert part at the flow outlet side”?

Regarding claim 18, the recitation, “the at least one insert part at the flow inlet side” is unclear. What part is “the at least one insert part at the flow inlet side”?

Further regarding claim 18, the recitation, “the at least one insert part...at the flow outlet side” is unclear. What part is the “at least one insert part at the flow outlet side”?

Regarding claim 19, the recitation, “an insert part at the flow inlet side” is unclear. What insert part is this recitation referring to?

Further regarding claim 19, the recitation, “an insert part at the flow outlet side” is unclear. What insert part is this recitation referring to?

Regarding claim 20, the recitation, “an insert part at the flow inlet side” is unclear. What insert part is this recitation referring to?

Further regarding claim 20, the recitation, “the insert part at the flow outlet side” is unclear. What insert part is this recitation referring to?

Regarding claim 21, the recitation, “the insert parts” is unclear, since the device has not yet been limited to one that has a plurality of insert parts.

Regarding claim 22, the recitation, “a flow rectifier” is confusing, because it is unclear whether this “flow rectifier” is one and the same as the “flow rectifier” recited in claim 1, or if this is a different element.

Further regarding claim 22, the recitation, “through openings” is confusing, because it is unclear whether these “through openings” are one and the same as the through flow openings” recited in claim 1, or if these are different openings.

Regarding claim 25, the recitation, “the flow rectifier has through-openings” is confusing because it is unclear whether the “through-openings” of this claim are further limiting the “through-openings” of claim 22, or if these are different “through-openings” from those recited in claim 22.

Regarding claim 27, the recitation, “the housing part at the outflow side” is unclear. What “housing part at the outflow side” is this recitation referring to?

Further regarding claim 27, the recitation, “a water exit opening” is unclear. What “water exit opening” is this recitation referring to?

Regarding claim 28, the recitation, “the housing part” is unclear. What “housing part” is this recitation referring to?

Regarding claim 32, the recitation, “the housing part at the outflow side” is unclear. What “housing part at the outflow side” is this recitation referring to?

Further regarding claim 32, the recitation, “the water exit opening” lacks antecedent basis. What “water exit opening” is this recitation referring to?

Regarding claim 33, the recitation, “the outflow-side housing part” is unclear. What “outflow-side housing part” is this recitation referring to?

Further regarding claim 33, the recitation, “the adjacent housing part” is unclear. What is the recitation, “the adjacent housing part” referring to?

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-26 and 30-33 are rejected, as well as the claims are understood by the Examiner, under 35 U.S.C. 102(b) as being anticipated by Grether et al., USPN 6,152,182.

Grether shows a jet regulator (1, 103, 105, 106, 108, 110) with a jet regulating device (8) in the interior of a mounting housing (2), the jet regulating device including at least one plate-shaped insert, each insert having webs (formed on deflector members 9) oriented transverse to a direction of flow, wherein between the webs, through flow openings are defined, and wherein the webs of the inserts are arranged in the form of a grid or net, crossing itself at intersect nodes (see Figures 4, 7, 9 and 11). It is noted that, although the drawings of Grether show a plurality of deflector members (see various embodiments throughout Figures 2-11 of Grether), which form the grid, wherein the deflector members are spaced apart in a longitudinal direction of the device, such arrangements are still reasonable to anticipate the claimed arrangement, since the webs clearly cross each other to form intersect nodes and since through flow openings are clearly

formed between the webs. It should also be noted that the disclosure of Grether expressly states that the deflectors “are preferably arranged in a grid shape in at least one plane oriented crosswise to the flow-through direction” (see column 3, lines 13-15). Thus, although not clearly shown in any of the drawings, the disclosure of Grether clearly includes a jet regulating device where the grid shape occurs in a single plane.

Grether further shows a jet fractionating device (5) upstream of the jet regulating device and/or a flow rectifier, wherein the jet fractionating device is shaped as a perforated plate having through flow holes (7). It is noted that the through flow holes of the jet fractionating device of Grether are shown to include at least a portion having a diameter that is smaller than at least a portion of the through flow openings of the jet regulating device. In Figure 3, Grether shows that the intersect nodes formed between the first two deflector members align with the intersect nodes formed between the next two deflector members. At least Figure 5a shows at least two inserts of the jet regulating device having reasonably identical construction. Grether also shows an embodiment (see Figures 10 and 11) wherein the jet regulating device has a set of radial webs (22) that cross at intersect nodes with a set of concentric webs (23). Grether also shows a flow rectifier (25) in at least one of the shown embodiments (see Figures 6 and 10) wherein the flow rectifier includes through openings (26), wherein at least some of the through openings (at least those in close proximity to the housing constriction 18) exhibit a portion having a smaller width than a length thereof in the direction of flow. Further, Grether discloses that the flow rectifier through openings may exhibit at least one of a rectangular, circular-segment or honeycomb shape (see column 13, lines 21-25). Grether also shows and discloses the mounting housing including multiple housing parts (see column 8, lines 36-40), at least two of which are disclosed as “sleeve

parts”, and Grether also shows that a housing part is integral with the perforated plate of the jet fractionating device (see Figure 1 – note that the outer rim of the perforated plate 6 forms an exterior portion of what would reasonably be considered part of the housing for the device). Grether also discloses an insertion stop in the housing for the jet regulating device (see column 5, lines 26-32). As to the device including at least one metal sieve, Grether explains that “mounting of metal flow regulator sieves can be omitted” (see column 2, lines 61-63), however this is enough to reasonably disclose a teaching that at least one metal sieve can be included. Grether also shows a housing constriction (18) in the area of the water exit opening, and Grether discloses locking connection of the housing parts (see column 9, lines 21-26).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grether et al., in view of Flieger, USPN 6,588,682.

Grether shows all of the limitations as set forth in claim 1, however Grether is silent as to including at least one soft and/or water-repellant surface on the housing part in the area of the water exit opening, or forming the housing part in at least the area of the water exit opening from an elastic material.

Flieger shows a jet regulator and discloses that other prior art jet regulators are often subject to calcification at their respective water exit openings. Flieger teaches forming at least the outlet portion of the device from an elastic material, thus permitting a user to easily and effectively clean the outlet portion with a finger tip (see Figure 1 and column 5, lines 30-53), and Flieger also discloses applying a soft and/or water-repellant surface to the outlet portion to substantially prevent wetting of the outlet portion, thus reducing or eliminating calcification (see column 5, line 54 through column 6, line 18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form at least the housing part in the area of the water exit opening of the device of Grether from an elastic material, and/or coat at least the housing part in the area of the water exit opening of the device of Grether with a soft and/or water-repellant surface, as taught by Flieger, thus permitting a user to easily and effectively clean the outlet portion with a finger tip, and/or reducing or eliminating calcification at the water exit opening.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents to Finkbeiner et al., Kuhn, Muchenberger et al., and Shekalim, are cited as of interest.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on 571-272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Darren W Gorman/
Primary Examiner, Art Unit 3752

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